found in the class-room facilities in the new engineering building. Inasmuch as the building has been erected mainly for the use of the rapidly enlarging cooperative department, it was felt by Dean Schneider that the old arrangement of class rooms was inadequate to meet the needs of the mature men who constitute a large proportion of the university student body. These men come from the various shops and large establishments of the city to the college, and in their daily experience in actual productive work, they have been confronted by many problems, not alone of theory, but of practise, and these problems have suggested to them certain very definite questions which they bring from the shops to the college for answer by their instructors. It was felt that a change in the ordinary class-room work and arrangement was needed to meet these new conditions. Each section will have a room which will be wholly its own. This room will be furnished with a table 5×10 feet, comfortable chairs, drawing tables, drawer lockers and magazine racks. Each group will have one such room, which will serve the dual purpose of club and class room.

The purpose will be to make these rooms not only places for recitation and instruction, but also sub-social centers. They will contain everything needed to satisfy the social needs of each section, and during the time when classes are actually being conducted in this room, the teacher and the men in the class room will sit around the large table and the practical and theoretical questions which the students have asked will be discussed in open session. This is a marked innovation in interior college arrangements, but the whole plan of the engineering college is being evolved to meet the special needs of the cooperative system, and any change whatsoever which promises to more satisfactorily meet the needs of a student body such as will occupy this building, will be thoroughly tried out before its adoption or final rejection.

THE INTERNATIONAL SCHOOL OF AMERICAN ARCHEOLOGY AND ETHNOLOGY

THE International School of American Archeology and Ethnology was inaugurated in the City of Mexico on January 20. The founding patrons of the school are the government of the United States of Mexico, the government of Prussia, Columbia University and Harvard University. The University of Mexico has placed at the disposal of the school rooms in which classes may be held, and will facilitate access to libraries, museums, institutes and other scientific centers in which are pursued studies like those of the school, and will aid in the support of the school with an annual subsidy of $6,000. Each patron will in turn appoint and pay a director of the school, and will also allot fellowships which will be sufficient to cover the expenses of board and lodging and transportation of a fellow. In accordance with the statutes the government of Prussia has appointed as director Professor Eduard Seler, director of the section of anthropology and archeology in the Royal Museum at Berlin, who has already made extensive researches in Mexico. He will hold office for one year, and will be aided by Professor Franz Boas, of Columbia, during his presence in Mexico as professor of anthropology at the National University. Two appointments to fellowships have been made, Dr. Werner Von Härchelmann by Prussia, and Miss Isabel Ranives Castaneda by Columbia University.

All the explorations and studies of the school are to be subject to the laws of the country in which the work is undertaken, and all objects found in investigations or explorations will become the property of the national museum of the country in which the studies are carried out. In case similar specimens of the same kind of object are discovered duplicates will be given to the patrons who supply the necessary funds for the exploration. Most of the explorations will be conducted in the rich fields of Mexico, and the government of that country has already given the necessary authorization for the investigations which will soon be begun and are certain to produce interesting and valuable results.

SCIENTIFIC NOTES AND NEWS

SIR JOSEPH LARMOR, Lucasian professor of mathematics at Cambridge University and

secretary of the Royal Society, has accepted an invitation to become the unionist candidate for the vacancy in the parliamentary representation of Cambridge University.

The Belgian Royal Academy of Sciences, Letters and Arts has awarded to Dr. L. A. Bauer, of the Carnegie Institution, the Charles Lagrange Prize for the period of 1905–08, of 1,200 francs, on account of his various researches in terrestrial magnetism.

Dr. Hideyo Noguchi, associate member of the Rockefeller Institute for Medical Research, received in December, 1910, from the Japanese government the honorary title of Professor (Igakuhakushi).

Professor Jacques Hadamard, of the Collège de France, has accepted an invitation from Columbia University to give instruction in mathematics at Columbia for a period of four to five weeks in the autumn of 1911. He will conduct one course in pure mathematics and one in mathematical physics.

It is reported that the Krupp Society has given Professor Emil Wiechert, of the University of Göttingen, 10,000 Marks to enable him to conduct experiments in aerodynamics; and also 6,000 Marks to Professor Leopold Ambronn, of the same university, for the construction of a new photographic apparatus.

The American Philosophical Society at a recent meeting appointed a committee to memorialize congress with a view to founding a National Earthquake Laboratory at Washington. This committee consists of Dr. Charles D. Walcott, secretary of the Smithsonian Institution, chairman; Professor H. F. Reid, Johns Hopkins University; Professor William H. Hobbs, University of Michigan; Dr. R. A. F. Penrose, Philadelphia, and Professor T. C. Chamberlin, University of Chicago.

It is announced that Baron Reinach has provided the Frankfort Physical Society with the funds necessary to establish a seismological observatory on the Feldberg, in the Taunus range. Dr. F. Linke will be the director of the observatory.

Professor F. Smith and Mr. F. A. Loew, of the University of Illinois, will this summer be associated with Professor J. E. Reighard at the Biological Station of the University of Michigan at Douglass Lake.

C. L. de Muralt, recently appointed professor of electrical engineering at the University of Michigan, becomes editor of the *Railway Electrical Engineer*. This journal is the official organ of the Association of Railway Electrical Engineers.

Dr. J. J. Davis, of Racine, Wis., who has devoted a large amount of time to the study and collection of parasitic fungus flora of Wisconsin, has been appointed curator of the herbarium of the University of Wisconsin. On their transfer to the new biological building, the botanical collections will be provided with new and better quarters for work, and a complete reorganization of the museum is planned.

Fourteen Harvard professors will be absent during the second half of the current academic year. They include: Professors C. L. Jackson, of the chemistry department; Hugo Münsterberg, of the philosophy department, who is serving as exchange professor at the University of Berlin; J. L. Love, of the mathematics department; C. L. Bouton, of the mathematics department; W. Z. Ripley, of the department of economics; R. B. Dixon, of the division of anthropology, and C. R. Sanger, of the chemistry department.

The following officers were elected at the recent annual meeting of the Royal Meteorological Society: *President,* Dr. H. N. Dickson; *vice-presidents,* F. Druce, H. Mellish, R. G. K. Lemfert, Colonel H. E. Rawson, C.B.; *treasurer,* Dr. C. Theodore Williams; *secretaries,* F. C. Bayard, Commander W. F. Caborne, C.B.; *foreign secretary,* Dr. R. H. Scott, F.R.S.

The Nashville section of the American Chemical Society held its organization meeting at Furman Hall, Vanderbilt University, on January 25. After the adoption of a constitution the following officers were elected: *chairman,* W. L. Dudley; *vice-chairman,* J. I.

D. Hinds; *councillor,* R. W. Balcom; *secretary and treasurer,* L. J. Desha. Dr. W. L. Dudley gave an informal talk on the "Action of Wireless Waves on Rarefied Gases." The regular meetings of the section will be held on the third Friday of each month.

DR. H. W. WILEY, chief chemist of the Department of Agriculture, Washington, D. C., delivered an address at Syracuse University on February 1 upon "The Services of Chemistry to the Public Welfare." The meeting was held in the Bowne Hall of chemistry under the joint auspices of the Syracuse Chapter of Sigma Xi and the Syracuse Section of the American Chemical Society.

PROFESSOR C. K. LEITH, of the University of Wisconsin, gave a lecture before the advanced students in geology at Northwestern University on January 26. His subject was a comparison of the origins of the iron ores of the Lake Superior region, of Cuba and of Brazil.

A LECTURE on electric oscillations and their application to wireless telephony was delivered before the chapter of Sigma Xi at Purdue University, LaFayette, Ind., January 28, by Professor C. M. Smith, of the department of physics of that university. Professor Smith explained the theory of wireless telegraphy and telephony and pointed out the entirely different conditions necessary for wireless telephony as compared with wireless telegraphy. The lecture was illustrated by a large number of experiments showing the analogy between electric and sound waves and was concluded with a demonstration of the singing arc lamp which reproduced very clearly a band selection through the agency of a phonograph and microphone located in a distant room.

AT a meeting of the Royal Geographical Society on January 16 Dr. Johan Hjort gave a detailed account of the Michael Sars North Atlantic deep-sea expedition of 1910, which he, with Professor H. H. Grau, Dr. Helland-Hansen, Mr. E. Koefoed and Captain Thor Iversen, undertook at the suggestion and at the expense of Sir John Murray, who himself accompanied them.

DR. HANS GRETHER, of Karlsruhe, Germany, has been appointed a special lecturer in McGill University and is giving in the graduate school, during the present session, a course of advanced instruction in the "Computation of secondary stresses in bridge trusses and other framed structures." The following gentlemen will act as special lecturers in the course on economic geology at McGill University during the present session: R. W. Brock, Esq., M.A., director of the Geological Survey of Canada; Dr. J. D. Irving, professor of economic geology, Yale University, and O. E. LeRoy, Esq., M.Sc., of the Geological Survey of Canada.

A STATE Biological Survey has been organized at the University of Colorado, the work being in the hands of a committee consisting of Professors F. Ramaley, T. D. A. Cockerell and J. Henderson. The work of such a survey has been carried on for a number of years past, but until now there has been no definite organization. The work includes fossil as well as living species of plants and animals.

THE British Treasury has, on the recommendation of the development commissioners, made a grant to the Board of Agriculture and Fisheries from the development fund of £40,000 for the ensuing year for the encouragement of light horse-breeding in Great Britain.

THE third semi-annual meeting of the American Institute of Chemical Engineers will be held at Chicago, Ill., June 21 to 24. Arrangements will be made to visit a number of the large technical plants in the vicinity. The committee on chemical engineering education and standardization of boiler tests will have important reports to present. The program of papers will be announced later.

THE first Universal Congress of Races will be held in London from July 26 to 29, 1911, to discuss the general relations between western and eastern peoples.

A COURSE of nine public lectures on problems of psychology have been given at Columbia University, as follows:

January 31—"Traits of Dreams," Professor C. E. Seashore, University of Iowa.

February 1—"Social Psychology," Professor Charles H. Judd, University of Chicago.

February 2—"Memory and Imagination," Professor E. B. Titchener, Cornell University.

February 3—"Frailties of Imageless Thought," Professor J. R. Angell, University of Chicago.

February 4—"The Standpoint and Scope of Social Psychology," Professor Mary Whiton Calkins, Wellesley College.

February 6—"The Psychology of Dream States," Professor Joseph Jastrow, University of Wisconsin.

February 7—"The Rôle of the Type in Simple Mental Processes," Professor W. B. Pillsbury, University of Michigan.

February 8—"The Ontological Problem of Psychology," Professor George T. Ladd, Yale University.

February 9—"Some Psychological Topics Emphasized by Pragmatism," Professor Josiah Royce, Harvard University.

THE new Oceanographic Institute, which Prince Albert of Monaco has erected on a part of the site of the old convent of the Dames de Saint-Michel in the Rue Saint-Jacques, was formally inaugurated on January 23. We learn from the London *Times* that the opening ceremony was performed by Prince Albert in the presence of President Fallières, M. Emile Loubet, members of the government and the principal dignitaries of the university and city of Paris. In his inaugural address Prince Albert explained the motives which had prompted the foundation of the new Institute in Paris and the purpose which he had designed it to fulfil as the complement of the Oceanographic Museum that he had founded at Monaco last year. The minister of public instruction, on behalf of the government, the president of the Academy of Sciences, on behalf of the French Institute, and the vice-rector of the university each returned thanks to Prince Albert for his munificent foundation. The new institute is at once French and international in character. This latter aspect of the foundation is marked by the presence on the committee of Sir John Murray, Professor Buchanan, Professor von Drygalski, Dr. Nansen and other foreign men of science. In addition there is an administrative council composed of French men of science. The institute is designed to work in intimate cooperation with the museum at Monaco, where laboratory work will be conducted, while in Paris lectures on the principles of oceanography will be delivered.

THE following resolutions favoring a federal grant to elementary and secondary education were passed unanimously by the house of representatives of the Illinois legislature on January 18:

WHEREAS, The legislature of Illinois by the joint resolution of February 8, 1853, was the first among American legislatures to petition the congress of the United States to make a grant of public land for each state in the union for the liberal endowment of a system of industrial universities, one in each state, to promote the more liberal and practical education of our industrial classes and their teachers; and,

WHEREAS, The congress not only made a liberal grant of land in the year 1862 for this purpose but has also followed up this policy once begun by still more liberal appropriations for the support of higher education in agriculture and the mechanic arts, resulting in the great chain of colleges for agriculture and the mechanic arts to be found in every state and territory in the union; and,

WHEREAS, The time has now come for the adoption of a similar policy in the field of elementary and secondary education. therefore, be it

Resolved, by the house of representatives of the state of Illinois, the senate concurring herein, That the congress of the United States be respectfully petitioned to appropriate annually to each state and territory in the union a sum equal to one dollar per head of the population of said state or territory as ascertained by the last census, for the purpose of establishing, maintaining and extending in the elementary and secondary schools of said states and territories, while not excluding other elementary and secondary subjects, such practical, industrial and vocational training, including agriculture, the mechanic arts, domestic science, manual training, commercial subjects and such instruction in other similar subjects of a practical nature as the interests of the community may seem to demand; and

Resolved further, That our senators in congress be instructed and our representatives be requested to use their best exertions to procure the passage of a law of congress donating said sum to each

state and territory in the Union for said purpose; and

Resolved further, That the governor of this state is hereby requested to forward a copy of the foregoing resolutions to our senators and representatives in congress and to the executives and legislatures of each of the other states and territories, inviting them to cooperate with us in this meritorious enterprise.

ACCORDING to a statement by Mr. Ray Priestley published in the papers before the departure of the *Terra Nova* for the Antarctic, an important geological discovery was made during Sir Ernest Shackleton's expedition. Mr. Priestley, who is now engaged with Captain Scott's Antarctic expedition, and who had for some months been collaborating with Professor David at Sydney in arranging a memoir of the geological work of Sir Ernest Shackleton's expedition, states that he discovered a small piece of rock on the Beardmore Glacier which now upon full examination proves to belong to the Cambrian limestones. It appears that a similar formation has in recent years been discovered in South Australia by Mr. Griffith Taylor, who is also a member of Captain Scott's scientific staff. The fossils found both in the latter and in the Antarctic specimens are identical, and the inference is that at a not very distant past the Antarctic was united to the continent of Australia. The fossils referred to are the immediate predecessors of corals and sponges.

UNIVERSITY AND EDUCATIONAL NEWS

A GIFT of $300,000 by Mrs. Russell Sage to Cornell University is announced. The money is to be used for a new dormitory for women students, to be known as the "Prudence Risley Hall" in honor of Mrs. Sage's mother.

THE old Philadelphia Dental College at Eleventh and Clinton Streets, which was purchased several months ago by Jefferson Medical College for $45,000, after remodeling will become the Daniel Baugh Institute of Anatomy.

AN increase in the income and in the building fund of the University of Wisconsin on the basis of a growth of 23 per cent. in the number of students in the last two years and of the constantly growing demand on the part of the people of the state for expert assistance from the university, is provided for in a bill introduced in the state legislature. It provides for changing the present two sevenths of a mill tax on the assessed valuation of all property of the state for maintaining the university to three eighths of a mill. This will increase the general university income approximately from $750,000 a year to $1,000,000 a year. For new academic buildings and permanent improvements the proposed legislation appropriates $300,000 a year, of which $50,000 annually is set aside for the purchase of books, furniture, apparatus and equipment. The remaining $250,000 a year is to be used for the construction of academic buildings, in the order of their greatest need and for the enlargement and repair of present buildings. For the construction and equipment of women's and men's dormitories the university bill provides for an annual appropriation for four years of $250,000. Out of this $1,000,000 a woman's dormitory is to be built first, then a commons and union for men, and finally dormitories for men. The university extension would have $100,000 next year and $125,000 the following year. This is an increase of $50,000 a year over the present appropriation. For agricultural extension, including traveling schools of agriculture and lectures and demonstrations throughout the state, $40,000 is provided, an increase of $10,000 over the present amount.

THE regents of the University of Michigan have applied to the legislature for a grant of $250,000 for a science building. The need for more adequate accommodations for the natural sciences has been felt for a number of years, and was the subject of a memorial to the regents, by the departments of botany, zoology, geology, mineralogy and forestry, in 1907. The congestion of that time has steadily become worse with the increase of students, and only slight possibility of expansion with present buildings. In 1908 the faculty of the entire literary department unanimously adopted a resolution to the effect "that in the opinion of this faculty, the greatest present